REPÚBLIC OF MOÇAMBIQUE

Civil Aviation Authority

TECHNICAL CIRCULAR

CT-60-003– THEORETICAL KNOWLEDGE EXAMINATION PROCESS AND REQUIREMENTS FOR LICENCES AND RATINGS ISSUE

Effectivity Date: 13/04/2022

1 Purpose

This Technical Circular is issued to provide guidance to the licence applicants/holders, employees of the licence holders/applicants, Approved Training Organizations conducting training the applicable licence applicants/holders, IACM Inspectors and all aeronautical personnel to be involved in any examination process, required in any part of MOZCAR 61, 64,65, 66 or other aviation document wish requires examinations, to meet specific Requirements in the MOZCARs Parts above mentioned for issue, renew, reissue of Licence, Rating, or Certificate and all aviation personnel interested or involved by any part of a specific MOZCAR/CATS.

2 Applicability

This Technical Circular is applicable to all Pilots, Flight engineers, Air traffic controllers, Cabin Crew and Aeronautical Station Operators licence applicants/holders, Aviation inspectors, Approved Training Organizations, Aircraft operator, Maintenance Organization and aviation Personnel which direct or indirect will be required to undergo/pass a Theoretical knowledge test in any specific part of Personnel Licensing MOZCAR/CATS, in lieu of acquisition (issuance, renew, reissuance) of a licence, rating, approval, certificate or any other as required by each MOZCAR part.

3. References

MOZCAR Part 61 specify requirements for issuance of pilot's license.

MOZCAR Part 63 specify requirements for issuance of flight engineers;

MOZCAR Part 64 specify requirements for issuance Cabin Crew certificate;

MOZCAR Part 65 specify requirements for issuance of air traffic controllers, Flight Operation Officers and radio station operator, and all other ground personnel as applicable

MOZCAR Part 66 specify requirements for issuance of aircraft maintenance technician /engineer;

MOZCAR Part 141 generally applicants requiring an approved training organization to obtain approval for a training program for licences or for licence applicants who are subject to the MOZCARS requirements;

4. General Examination Provisions

4.1 The MOZCARs 61,63,64,65,66, as applicable require in each specific part to applicants for a licence, rating, approval or certificate, issue, reissue or renew, present a report of successful completion of Theoretical knowledge test, and practical skill test as a requirement to acquire the above mentioned documents.

4.1.2 Theoretical examinations are conducted online or in paper at IACM examination rooms, or outside monitored by IACM Personnel Licence Assistant (PLA) or Personnel Licence Inspectors (PLI);

4.2 Examination Seasons and booking

4.2.1 IACM establishes a number of examination season (set of days in the year on wish the examinations can be taken) in a year, and a number of examining calendar (a group of examination types or subjects set for a portion of days within working days) in the online framework examination system (Civil Aviation Software for regulators-CASR), or in paper.

4.2.2 In a calendar, one examination week will be selected for conducting of all booked exams.

4.2.3 A candidate shall submit his application not less than, 15 days before the examination date.

4.2.3.1 Five days before the examination start a communication of examination date and time will be sent to accepted applicant or Training organization applying; And within 15 days an inspection report will be sent for non-admitted candidates;

4.2.3.2 An examination AIC will be posted in that authority website , specifying the examination dates of all the seasons and any other information deemed necessary when deemed necessary, for the paper examinations;

4.2.3.3 All online examinations (conducted in CASRS system), will be conducted each day, provided the applicant has been accepted and communicated as specified in points 4.2.3, of this document;

4.2.4 Application packages shall be sent to IACM in the current approved ways of applications; anny application submitted in a not approved procedure, will not be considered for evaluation;

5. Examination responsibilities and subjects

5.1 Responsibilities.

5.1.1 The IACM /PEL Department is responsible to administer and conduct examinations for:

Pilots license;

Ground Instructor License /approval;

Flight Engineer License;

Air Traffic Controller Licence;

Aircraft Maintenance Engineer Licence;

Flight Operations Officer Licence;

Flight Radiotelephony Operator Licence; and

Cabin Crew Member Certificate licence

And All ratings where applicable

5.1.2 The IACM does not present training courses for the above mentioned professionals. Training for these professionals is conducted by Aviation Training Organizations (ATO) (Domestic or Foreign) or by Certificated Air Operators holding holding approval certificate to provide licence or rating trainings, approved by IACM uder MOZCAR/CATS 141;

5.1.3 The IACM is responsible to develop and make available examination syllabis, to estipulate examination entry requirements, examination credit requirements and examination policy, through a MOZCAR/CATS or any other approved document for the licence south, **this doesn't include the providing of pool of question or any other material for the training purpose before the examination**;

5.1.4 Training conducted in an non approved training Organizations, will not be accepted, for a Licence, Approval ,certificate, or rating Knowledge examination.

5.1.5 Examination Subjects and Passing Grades

In order to qualify, candidates must obtain the following pass marks for each prescribed subject:

a) Private Pilot Licence Subjects:

1) Air Law
2) Aircraft General Knowledge
3) Flight Performance and Planning
4) Human Performance
5) Meteorology
6) Navigation
7) Operational Procedures
8) Principles of Flight
9) Radio Telephony.

Pass Mark per subject is 70%

b) Commercial Pilot Licence Subjects:

1) Air Law
2) Aircraft General Knowledge
3) Flight Performance and Planning
4) Human Performance
5) Meteorology
6) Navigation
7) Operational Procedures
8) Principles of Flight
9) Radio Telephony (if applicable)

Pass Mark per subject is 70%

c) Airline Transport Licence Subjects:

1) Air Law
2) Aircraft General Knowledge
3) Flight Performance and Planning
4) Human Performance

5) Meteorology
6) Navigation
7) Operational Procedures
8) Principles of Flight
9) Radio telephony (if applicable)

Pass Mark per subject is 70%

d) Ground instructor Rating Subjects

1) The learning process;
2) Elements of effective teaching;
3) Student evaluation and testing;
4) Course development;
5) Lesson planning;
6) Classroom training techniques;
7) Techniques of applied instructions;
8) Uuse of training aids;
9) Analysis and correction of student errors; and
10) human performance relevant to ground instruction and

pass a knowledge test on the aeronautical knowledge areas specified in Regulations applicable.

Overall Pass Mark is 70%

e) Flight Engineer Licence Subjects:

1) Air Law
2) Aircraft General Knowledge
3) Flight Performance and Planning
4) Human Performance
5) Operational Procedures
6) Principles of Flight: Fundamentals of Aerodynamics
7) Radio Telephony: Radio Telephony Procedures and Phraseology

Pass Mark per subject is 70%

f) Air Traffic Controller Licence Subjects:

1) Air Law

2) Air Traffic Control Equipment
3) General Knowledge
4) Human Performance
5) Comunications Pass Mark is 80%
6) Meteorology
7) Navigation
8) Operational Procedures Pass Mark is 90%

Pass Mark per subjects other than (5 and 8) is 70%

g) Flight Operations Officer Licence Subjects:

1) Air Law
2) Aircraft General Knowledge
3) Flight Performance calculation and Planning procedures Pass Mark is 90%
4) Human Performance
5) Meteorology, Pass Mark is 80%Navigation
6) Operational Procedures Pass Mark is 90%
7) Principles of Flight
8) Radio communication Pass Mark is 90%

Pass Mark per subject all other than (3, 5, 7, and 9) is 70%

h) Flight Radio Telephony Operator License Subjects:

1) The ICAO spelling alphabet;
2) Departure and position reporting;
3) Obtaining meteorological information;
4) Transmission and procedures of distress and urgency signals;
5) Communication techniques and Radio Telephony procedures and phraseology;
6) The necessity for brevity in radiotelephony communication and priorities;
7) Pre-flight briefing;
8) Classification of directional finding bearings;
9) Radiotelephony facilities and frequencies available in the Flight Information Region (FIR);
10) Elementary knowledge of the relationship between wavelength and frequency;

11) Ability to use the radio equipment of the type installed in the aircraft and including the ability to carry out emergency procedures.

Overall Pass Mark is 75%

i) Cabin Crew Member Certificate Subjects:

An applicant for a cabin crew member certificate shall have met the knowledge requirements for cabin crew member certificate under parts 64 of the Mozambique Civil Aviation Regulations.

1) fire and smoke training;
2) water survival training;
3) survival training appropriate to the areas of operation such as polar, desert, jungle or sea;
4) medical aspects and first aid;
5) passenger handling;
6) communication;
7) discipline and responsibilities;
8) crew resource management.

The applicant should have clear knowledge of the following:

9) the responsibility of cabin crew member to deal promptly with emergencies involving fire and smoke and, in particular, emphasis on the importance of identifying the actual source of the fire;
10) The importance of the cabin crew member informing the flight crew member immediately, as well as the specific actions necessary for co-ordination and assistance, when fire or smoke is discovered;
11) the necessity for the cabin crew member doing frequent checking of potential fire-risk areas including toilets and the associated smoke detectors;
12) the classification of fires and the appropriate type of extinguishing agents and procedures for particular fire situations, the techniques of application of extinguishing agents, the consequences of misapplication, and of use in a confined space; and
13) the general procedures of ground based emergency services at aerodromes and Licence keeping responsibilities

Overall Pass Mark is 75%

j) Aircraft Maintenance Engineer License

The detailed information concerning theoretical knowledge requirements and examination for issue or extension of Aircraft Maintenance Engineer License are contained in the **technical circular CT-66-01– aircraft aviation maintenance technician license and ratings knowledge test**;

a) Aircraft Maintenance Engineer License Subjects:

1) Air law and airworthiness requirements;

2) Natural science and aircraft general knowledge;

3) Aircraft engineering;

4) Aircraft maintenance;

5) Human performance;

5.2. Examination Entry Requirements

5.2.1 The requirements for entry to examinations are determined by the specific regulations in the MOZCARs and also prescribed by the Chairman and CEO of the IACM;

5.2.2 Entry to Private pilot examinations:

(a) The candidate must complete the application form,

(b) The candidate must have a valid medical certificate,

(c) The candidate must have a valid student pilot license,

(d) The candidate must have completed at least 25 hours of the pilot training course, which includes 15 hours of dual instruction.

5.2.3 Entry to Commercial pilot examinations:

(a) The candidate must have a valid PPL (IACM issued license or a foreign license which was validated or are in the process of being converted),

(b) The candidate must have completed a CPL training course with an organization, which is approved by the IACM.

5.2.4 Entry to ATP examinations:

(a) The candidate must have a valid CPL (IACM issued license) or a ATPL foreign license which was validated or in the process of being converted),

(b) The candidate must have completed an ATP training course with an IACM approved organization.

5.2.5 Entry to Instrument ratings:

(a) The candidate must have a valid PPL or CPL (IACM issued license or a foreign license which was validated or are in the process of being converted),

(b) The candidate must have completed a course in instrumentation with an IACM approved organization.

5.2.6 Entry to Instructor ratings:

(a) The candidate must have a valid CPL or ATPL or other licences (AMT, FOO, Cabin Crew, ATC, and others as applicable) except PPL, IACM issued license or a foreign license which is in process of being converted,

(b) Have completed an instructor course with an IACM approved organization, where required.

5.2.7 Entry to Aircraft Maintenance Technician (AMT) examinations:

(a) The candidate must have completed a course with an approved Aviation training organization (ATO), or an Approved Maintenance Organization (AMO) (present the letter or certificate of completion);

(b) The accountable manager at the AMO must certify the candidate's readiness for the examination.

c) Presentation of Logbook containing at least half of experience required for the issuance of the licences as applicable, properly certified and recognized by a responsible personnel;

5.2.8 Entry to Air Traffic Controllers, Radio Station Operators, Flight Operations officers, Cabin Crew, and Drone Pilots examinations:

(a) The candidate must have completed a course with an approved Aviation training organization (ATO), or Authorized Operator

(b) The accountable manager at the Operator must certify the candidate's readiness for the examination.

c) Presentation of Logbook properly certified and recognized by a responsible personnel as applicable;

5.3 Examination Process

5.3.1 Entry to Examinations

All application package shall be accompanied by the prescribed fee for each subject booked;

Applications package without proof of payment, will not be reviewed.

5.3.1.1 For Licence applicants application package must contain:

5.3.1.1.1 Examination entry form properly filled;

5.3.1.1.2 Copy of Licence held were aplicable;

5.3.1.1.3 An ATO, Authorized operator or Approved Maintenance Organization , Completion certificate or recommendation letter;

5.3.1.2 For Licence Validation or conversion applicants, the application package must contain:

5.3.1.2.1 Examination entry form properly filled;

5.3.1.2.2 Copy of a foreign valid Licence held;

5.3.1.2.3 On going and accepted Validation or conversion process at the Authority.

5.3.2 Preparation for Examination sitting:

5.3.2.1 Application packages submitted in the IACM reception according to the above required process, will be reviewed in PEL Department, with a Personnel Licence Inspector or Assistants (PLI or PLA);

A examination List will be posted at IACM reception display, in not less than 5 working days before the examination starting date, containing only applicants without discrepancies on the application package

Candidates shall report at IACM, 30 minutes before the examination start time, to get the access codes and confirmation.

Attendance at the Examination

Candidates should be present at the examination centre with proof of identity at least fifteen (15) minutes prior to the scheduled time for the commencement of each examination paper. Candidates may enter the examination room only during the fifteen (15) minutes preceding the start of the examination to prepare examination material. Candidates must not remain in the room after they finish the examination period unless they are taking an examination in the next period.

Bags, briefcases, cellular phones, programmable calculators, beepers etc are NOT PERMITTED in the examination room, such personal belongings may be placed at the rear of the examination room, under the direction of the invigilating desk.

Examination results will be released to the candidates within fourteen (5) working days and not on telephone, even after the candidates se his pass mark on the frame work;

The candidate is responsible to takes his examination report upon 5 working from the examination date, at the IACM reception desk.

5.3.3 Materials for the Examination

When necessary the following reference books and tables will be supplied to each candidate but they must not be marked in any way or removed from the examination room.

Flight Planning Data sheets and radio navigation charts;

The Authority's Navigation Log and Flight Planning forms will be provided and no any other may be used.

Candidates are NOT permitted to bring their own tables, reference books or papers, including instruction books for calculators and computers into the examination room.

For Performance Examination candidates will be provided with appropriate aircraft performance (Charts) and a copy of the applicable Regulations.

Candidates are required to provide themselves with all the necessary drawings and calculating instruments, e.g. Dividers, compasses, protractors, parallel rules, slide rules, and navigational computers.

No pencil boxes, containers or instrument cases are permitted on the tables. The use of slide rules or instruments containing printed information on critical points, point of no return, distance to the horizon, convergence angle, conversion factors, etc. is not permitted.

Candidates will NOT be permitted to use calculators which are programmable; those having a navigation function; those having a hard copy printout; or devices having an alpha-numeric data bank. However they may use simple wrist or hand held electronic calculators in the examinations.

Calculators must not be used in such a manner, or be of such a type, as to cause distraction to other candidates.

A candidate must accept the risk that the misuse or malfunctioning of a calculator may lead to an incorrect answer. No allowance for such an occurrence can be made by the Authority in marking t.

All relevant data must be entered in appropriate forms when so directed. Power supplies for operating or recharging electronic calculators may not be available in the examination room.

All used or unused writing paper and other materials supplied to the candidate must be returned to the invigilator at the end of the examination.

5.3.4 Rules to be Applied for Conduct of Examination

All work must be shown in the proforma, or navigation log forms or on foolscap when so directed; candidates are not allowed to use any loose paper other than that provided at the examination. All papers are to be returned with the answer sheet to the invigilator on completion.

If examination is conducted in computer, the candidate must select the answer by clicking on the option desired.

After the examination time ends, the examination will automatically be terminated, and all non-marked question will be counted as zero.

No discussion with the invigilator is allowed on regard to the examination question or so on, only the procedures are to be asked.

Answer sheets are to be completed using pen for paper examination. Candidates may use other writing implements for navigation and flight planning at the discretion of the invigilator.

Silence is to be observed in examination room at all times.

If a candidate wishes to speak to the invigilating officer, he should remain seated and raise his hand. It should be noted that the invigilating officer will consider only those questions from candidates, which relate to the general conduct of the examinations and he will not enter into discussion on the interpretation of words or questions contained in the examination papers.

A candidate may leave the room if he finishes before time, except during the last five (5) minutes before the end of the paper and subject always to the permission of the invigilating officer. Candidates are to stop work when so directed and must remain seated until all answer material has been collected.

Any candidate who attempts to remove unauthorized examination materials from the room will, talks to any other person rather than the invigilators, or contravein any rule

established will be liable to disqualification from those examinations, which have been taken.

6. Examination Credits

6.1 A candidate for any pilot examination must enter for at least 4 subjects of an examination for the first examination sitting entered for.

6.2 A candidate will retain credits for all subjects passed

6.3 Having attained credits, a candidate is required to pass the remaining subjects for the examination within 6 months from the date at which credits are attained.

6.4 A candidate may be allowed a 30 days extension if he has only one subject left to pass. His request will be considered only if the time to attain his subjects has not expired at the time of the request.

6.5 The Manager PEL must approve the request for an extra attempt after the expiry of the validity period for examination credits.

6.6 All information on credits is to be retained in the candidate's file.

7. Dealing with problems

7.1 Any transgression of examination instructions is reported to the PEL Department.

7.2 The Manager PEL appoints an inspector to investigate the matter and to recommend action to be taken to the Director Flight Safety Standards.

7.3 The Manager PEL is responsible to review and support the recommendation by the PLI.

7.4 The Director Flight Safety Standards approves the recommended action.

7.5 The Manager PEL ensures that the approved action is taken.

Approved

CHAIRMEN OF THE IACM BOARD

Capt. **João Martins de Abreu**